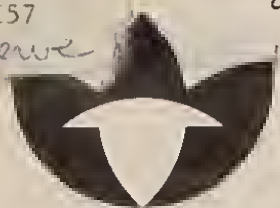


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# Inside APHIS

Vol. 9 No. 3 United States Department of Agriculture • Animal and Plant Health Inspection Service December 1988

## PPQ Officers Join Rescue Effort in Texas Building Collapse

PPQ Officers Mario Rodriguez, Todd Borchers and Paul Balistocky of the Brownsville, Texas, office will never forget July 7, 1988. On that day a three-story building in downtown Brownsville collapsed during a heavy rainstorm. Dozens of people had taken shelter in and around the building because of the storm, adding to the number of shoppers inside. Fourteen people lost their lives in the disaster and another 47 were injured.

Bystanders immediately began trying to free people trapped under the huge pile of rubble that just minutes before had been the Tienda Amiga department store. Local authorities quickly set up a search and rescue operation.

The PPQ office is located at the International Bridge separating Brownsville from Matamoros, Mexico, just two blocks from the Tienda Amiga. As soon as Officer in Charge Eugene Stang learned of the disaster, he gave his staff the go-ahead to help in any way they could. Not all of the personnel could be released, but three of the officers assisted in the relief efforts.

Officer Mario Rodriguez was one of the volunteers who worked for the next two days at the site. His first day was spent removing rubble and searching for victims and survivors. "It was very sad," he recalled. "We saw people hurt, with broken arms, and people crying. At first we didn't realize the severity of the emergency."

By the following day, Rodriguez reported, experts arrived with sniffer dogs and specialized equipment to help locate survivors. The PPQ officers were then assigned other tasks, including moving bystanders away from the site of rescue work and traffic control activities.

Said Rodriguez, "Everyone came together and pulled as one; they helped and gave a lot of themselves."

Officer Todd Borchers had been stationed at the Brownsville office for less than a year. He too joined his colleagues and worked to clear debris from the disaster site. "Whenever a survivor was found amid the rubble," said Borchers, "workers and bystanders would cheer. You could feel the excitement in the air."

A few weeks later, both the mayor of Brownsville and the chief of police wrote letters of thanks to the three PPQ officers.

*Inside* joins these local officials in congratulating Officers Rodriguez, Borchers and Balistocky for their humanitarian actions and the efforts and energy they volunteered to help their fellow citizens in need.

**Editor's Note:** Officer Balistocky is no longer with APHIS, having resigned in September. ■



Rescuers sift through rubble of three-story building that collapsed in downtown Brownsville, Texas. (Photo by Brad Doherty, THE BROWNSVILLE HERALD)



Brownsville Chief of Police Andres Vega (center, on left) thanks PPQ officers (l-r) Mario Rodriguez, Paul Balistocky, and Todd Borchers for their assistance in the rescue effort. (Photo by Jim Altus)

## Medfly Outbreaks in California Prompt Aerial Spray, Sterile Fly Release

Medfly, one of the world's most destructive agricultural pests, was discovered in two locations this year in Los Angeles County, Calif., resulting in separate eradication projects. The Medfly, about the size of a small house fly, attacks more than 260 different kinds of fruits and vegetables and would cost producers millions of dollars if it became established in the United States.

The first Medfly project began on July 21, a day after two unmated female Mediterranean fruit flies were trapped in peach trees in the Northridge area of Los Angeles County. A total of six Medflies were discovered during the project. Officials released more than 332 million sterile Medflies in a 62-square-mile quarantine area in Northridge, with the last sterile release on October 4. Quarantine regulations are still in effect to prevent further spread of the pest.

The second project began after a single Medfly was discovered on September 26 in the Culver City area of Los Angeles County, just 20 miles from the first project. Since that time, 48 Medflies have been trapped in the Culver City area.

### Forming a Task Force

"We began assembling personnel for the outbreak the very next day," said Reg Rosander, Associate Project Director for USDA. "Since we were already working on a Medfly project, we had experienced people we could call upon to move right in and do the job," he said.

State, county, and federal agriculture officials immediately began checking all traps. More than 2,500 Jackson and McPhail traps were added throughout a 100-square mile trapping zone. Fruit was stripped from nearby host trees and examined for Medfly larvae. A ground application of insecticide was applied in the immediate area of the fly finds.

### Aerial Spray Precedes Sterile Flies

California Governor Deukmejian issued an emergency proclamation for Los Angeles County so the state could begin spraying the new infested area.

Task force members notified residents that one aerial application would be made in the area of Culver City. On Thursday night, October 7, three helicopters carrying protein bait mixed with the insecticide malathion sprayed a 35-square-mile area of Los Angeles County to destroy any breeding Medfly populations.

### New Quarantine Regulates Fruit Shipment

State and Federal quarantine restrictions were placed on the movement of Medfly host fruits and vegetables within a new quarantine area of 76 square miles. The quarantine affects nurseries, caterers, farmers markets, and fruit stands. Individuals cannot carry regulated produce out of

## APHIS Initiates Negotiated Rulemaking

APHIS will soon be the first agency in USDA to use negotiated rulemaking in developing a regulation. The technique, used successfully by about seven other government agencies, gives the groups interested in or affected by a regulation an opportunity to voice their concerns and to work together to find a solution they can all accept.

In this case, the subject for discussion is Varroa mite, a honeybee parasite which was discovered for the first time in the United States last September and has since spread to 18 states. The mite causes decreased brood, deformed bees, and weakening of the colony's ability to pollinate plants and produce honey.

APHIS imposed a quarantine April 6 to restrict movement of bees and bee equipment from infested states, but rescinded it a month later when it proved too difficult to administer. Instead, APHIS began coordinating a nationwide survey while states conducted their own regulatory programs.

Members of the Regulatory Analysis and Development staff are planning a late November meeting on Varroa mite to include about 20 people representing divergent points of view, including state agriculture officials, migratory beekeepers, producer groups (such as apple, cranberry, and blueberry producers), and apiary association representatives. The first day will be an orientation and training session for participants, followed by two days of negotiation.

Negotiated rulemaking is an alternative to the usual process of publishing a notice in the Federal Register, inviting public comment, and publishing a final regulation. That method incorporates the comments of affected parties, but does not provide a forum where those parties can benefit from each other's comments. Negotiated rulemaking has a "win-win" orientation. Its aim is to produce a consensus document—a rule with which all parties can live, even if not all agree to every provision of the proposed rule. ■

See MEDFLY page 2



the quarantine boundaries. Fortunately, there are no commercial producers within the quarantine area.

### Sterile Release Fights Medfly

On October 13, APHIS, in cooperation with the California Department of Food and Agriculture and Los Angeles County, began dropping 40 million sterile flies by aircraft five days a week in the quarantine area. Eventually the number of sterile flies released on the project increased to 50 million per week. The project plans to continue releasing sterile flies as late as April, 1989.

"Most of the flies will be released from the USDA's specially equipped twin-engine aircraft, with the remainder being dispersed from roving vehicles around the sites where the Medflies were trapped," said Rosander.

The sterile flies are produced at the California Medfly Laboratory in Honolulu, Hawaii. They are sterilized by radiation and dyed pink so they can be distinguished from wild Medflies. Sterile flies are shipped in their pupal stage to a special project facility located at the California Air National Guard Base in Van Nuys, where they are reared to the adult stage in three to four days.

"We check each shipment of flies at our mobile laboratory to make sure they are sterile," said Rosander. "When they are released, the sterile flies will mate with any wild Medflies in the area," he said. "Eventually, the flies will breed themselves out of existence."

Rosander said this sterile fly technique was used successfully last year to eradicate a Medfly outbreak in Los Angeles County.

"What we learned about the sterile fly technique last year was critical in helping us to assemble the same operations so quickly for the outbreaks this year," said Rosander. "The success of the entire project so far is due to the cooperative effort of the general public and the employees from APHIS, the California Department of Food and Agriculture and the office of the Los Angeles County Agricultural Commissioner." ■



Steve Tolar of PPQ empties boxes of sterile Medflies into a hopper, from which they are loaded into a fly-release machine and dispersed by aircraft. One box holds 45,000 flies; the fly-release machine holds up to 4 million flies. (Photo by Reg Rosander)

## Letters to Inside

Dear Readers:

Keep the letters coming (also ideas for stories and photos). As space permits, we will print all signed letters, but we reserve the right to edit or rewrite for reasons of space and style. The editor or an APHIS official will answer letters requiring responses. Although we appreciate all submissions, we cannot guarantee that they will be returned. ■

On September 13, Jon Henry, one of the first detector dogs employed by APHIS, died after a brief illness. His handler, Cal Brannaka, shared his feelings about losing a trusted partner with whom he'd worked for three years:

When Jon Henry and I came to Miami, there was much work to do. We needed to prove that the Beagle Brigade could be a productive, viable tool. It was truly Jon Henry who made the program work.

This little 24-pound beagle captured the hearts of many, passengers and employees alike. Frequent travelers asked about him, and many people saw Jon Henry as the airport mascot. He had a strong will to do the work asked of him, and often kept me going just when I needed it most. I learned so much from this little dog.

I'm continually amazed by the detector dogs our agency uses. One could not ask for a better employee. Our beagles cannot replace our officers, nor should they, but they do make life more tolerable just with their presence. Our agency can be proud of Jon Henry's accomplishments—the Beagle Brigade would not be where it is today without him.

Thanks, Jon Henry, for making my life happier, and thanks, my little friend, for a job well done. You will live on in my memory. ■

## Boll Weevil Battle Continues: Expansion on Three Fronts

The battle to best boll weevil in the U.S. cotton belt has been brewing for nearly a century. Recent meetings in Montgomery, Ala., demonstrated that there are still disagreements on how to defeat this formidable insect foe.

With the southeast expansion into Georgia, Alabama and Florida, the boll weevil program has moved from the periphery to the heart of the boll weevil belt. In the process it has gained new supporters as well as new detractors.

### Suppression Program Cuts Pesticides

Program director Fred Planer says this polarization is a replay of the scenario in North and South Carolina. As the program pushed the pest out of those states, says Planer, predatory beneficial insects increased and insecticide use was cut in half, reducing grower costs and upping cotton acreage. "Naysayers became supporters in the final analysis," says Planer, "and we expect the same thing will happen this time."

Planer says growers in the southeast—who are paying 70 percent of program costs—are generally pleased and very little boll weevil damage has been reported this season. On the Texas High Plains, program personnel are continuing the 24-year success story as they prepare for the fall suppression program. And in the southwest, supervisors report that only 15,000 of the 650,000-acre program required treatment in mid-August.

### Scoping Meetings Held

Plans to tie these activities together into a national program, ultimately aimed at squeezing boll weevil out of all U.S. cotton regions, took its first step forward in early August. Three scoping meetings were held in Montgomery, Ala., Lubbock, Texas, and Phoenix, Ariz., as a prelude to preparing an environmental impact statement for the proposed national program. About 50 speakers took advantage of the forum to define environmental and economic issues they wished to have addressed in the upcoming document.

Almost all of the speakers applauded current program efforts, calling them both agriculturally and environmentally sound.

### Southeast Program Opposed

Former zoology researcher Robert Mount, spearheading opposition to the southeast program, based his arguments upon his premise that boll weevil cannot be eradicated using existing technology. Carolina successes notwithstanding, Mount maintains that Alabama conditions are different; he advocates further research before attempting eradication there.

Mount joined with the Alabama Conservancy and Sierra Club in legal action earlier this year to halt the program. In an agreement worked out in August, APHIS agreed to substitute ground equipment for airplanes in some cases, to notify certain Alabama newspapers of spray dates and to prepare an EIS, as outlined by the National Environmental Policy Act. Additionally, a new Alabama referendum will be held sometime next spring. In the settlement, APHIS paid court costs and legal fees.

### Beet Armyworm Emerges

Beet armyworm, an occasional pest of many crops, has emerged in outbreak proportions in both the southeast and southwest this season, further complicating the debate. While Mount and some farmers lay the blame for armyworm directly upon the program, others contend that the outbreak is the result of a complex array of factors including a mild winter, sandy soils and the current drought. "It is an issue where even experts disagree," said Frank Myers, Program Coordinator in the southwest.

### Environmental Impact Statement to be Prepared

Michael Werner of Biotechnology, Biologics, and Environmental Protection presided over the three scoping meetings and expects the EIS to be ready late next spring. Written comments were accepted through September 2, and Werner already has 700 pages of transcripts from the oral presentations. Of those comments Werner says that it would be difficult and misleading to classify them as 'for' or 'against' the program. "The important thing is that those most interested in the program have helped us see the issues more clearly from their perspective. No amount of vicarious reasoning can substitute for that," he said. ■



Trapping and close examination of cotton plants provide needed data to supervisors for the boll weevil eradication program. Insecticide treatments can then be made judiciously for optimum impact.

## Inside APHIS

Inside APHIS is published quarterly by Legislative and Public Affairs, Room 700, Federal Building, 6505 Belcrest Road, Hyattsville, Md. 20782. Telephone: FTS or (301) 436-7799.

Call or write the editor with ideas for the next issue by February 15, 1989.

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# Frightening Coyotes off the Mountain

Wildlife biologist Sam Linhart's new sound-and-light show affected his audience just the way he intended: They walked out, leaving behind their favorite supper.

Linhart is a rare showman in that he wants his audience to go away. His "audience" is made up of coyotes that prey on sheep in the Rocky Mountains. Linhart's mission is to scare coyotes away from mountain pastures where range sheep are bedded down for the night.

## Flashing Lights, Loud Noises

"I aim for a variety of the most awful sounds and lights I can find," Linhart says. "The show runs all night, every night, and I make it as scary as I can. My basic tools are a 110-decibel warbling siren, a 70,000 candle-power strobe light, and a high-frequency, 123-decibel electronic alarm."

## Methods Tested on 12 Bands of Sheep

Linhart and his co-workers at the Denver Wildlife Research Center, Jerry Roberts and Gary Dasch, have been trying out various versions of the sound-and-light show for the last five years. As an example of how their trials work, they cite a performance in northwestern Colorado that ran the summers of 1985 and 1986 on 12 bands of sheep totalling about 12,000 ewes and their lambs.

"Timers activated the frightening devices for about 7 to 10 seconds every 6 to 7 minutes in a random sequence," Linhart says. "The devices ran on a 12-volt industrial battery, which kept the show going for about 60 days before the current ran out."

"I also did some work with an experimental device in which a human voice recorded on a microchip screams at the coyotes," Linhart adds. "This hasn't worked very well so far because, among other problems, the broadcast voice becomes distorted when the battery starts to run down. But voice recordings definitely have a potential for frightening coyotes."

Linhart packed the devices into ammunition boxes or plastic containers to keep them dry. He

had them trucked to the nearest road and then carried on horseback the last rock-strewn miles to the mountain pastures, located at an elevation of about 10,000 feet in the White River and Routt National Forests.

Sheep producers and their herders agreed not use any other measures against coyotes so the sound-and-light show could get a fair test, and they kept a careful record of lamb losses.

## Lamb Losses Reduced

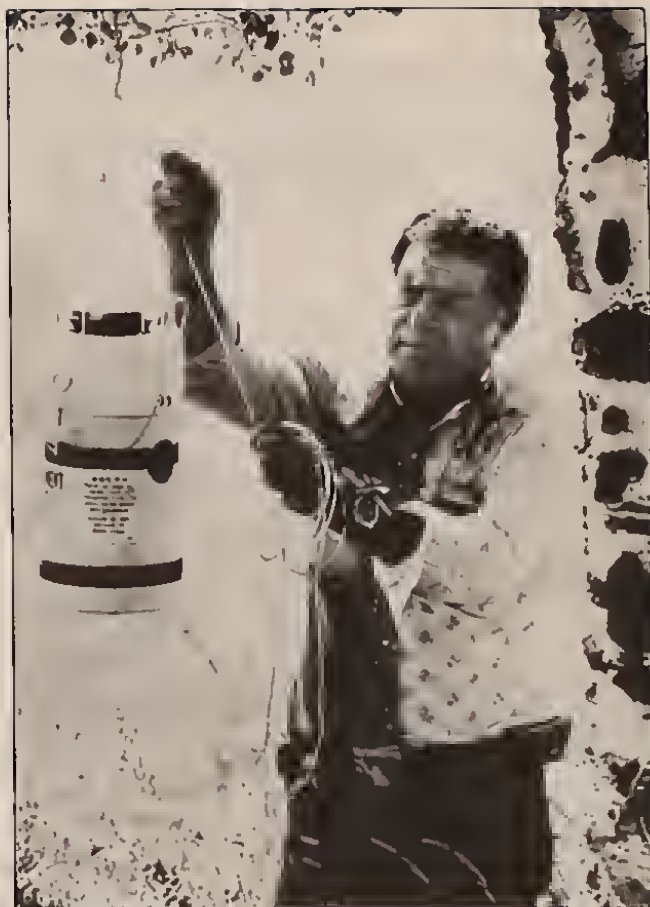
"Our frightening devices did a good job, even though they didn't stop lamb kill altogether in the 12 bands of sheep," Linhart says. "In 10 bands, losses were down an average of 73 percent compared to the year before. However, for some unexplained reason, losses in two bands increased 46 percent. Counting all 12 bands, lamb losses were down by 59 percent, or 528 lambs. At 1983-84 lamb prices of \$55 per head, these lambs were worth more than \$28,800."

Sheep producers familiar with the trials say the devices have definite commercial potential. Other ADC trials conducted on farms with nonroving bands of sheep have shown particularly good results. APHIS is now advertising for commercial manufacturers to put frightening devices on the market. However, Linhart emphasizes that frightening devices cannot replace other methods of damage control, though they can function as one more tool in the kit of ADC field personnel and sheep producers.

## Sheep and Herders Ignore the Show

Okay, so the coyotes basically hated the flash and fury Linhart orchestrated for them. But how about the sheep and the herders?

"The herders kept their sanity by going to sleep in their own camp a distance away," Linhart says, "and the sheep ignored the show. Unlike the nervous coyotes, sheep aren't disturbed easily by sounds and lights." ■



Biological technician Gary Dasch hangs a 70,000 candle-power strobe light about 8 feet off the ground to maximize transmission of the flashes. He says frightening devices work best on hilltops, ridge lines and the edges of clearings. (Photo by Sam Linhart)

# Bovine TB Found in North Dakota

APHIS veterinarians and animal health technicians joined forces with state personnel in North Dakota early in July to test more than 14,000 cattle for bovine tuberculosis, an infectious disease of beef and dairy cattle, as well as humans.

Lesions suggestive of tuberculosis were first detected in two cows during routine surveillance at a slaughter plant in West Fargo, N.D.

USDA meat inspectors collected tissue samples from these animals and sent them to the National Veterinary Services Laboratory in Ames, Iowa. The samples were confirmed for bovine tuberculosis a few weeks later.

Bovine tuberculosis bacteria can be spread among cattle through inhalation or by contaminated food and water sources. Humans and other animals can contract the disease by drinking unpasteurized milk from infected cows.

## Tracing the Source

"APHIS immediately began taking steps to locate and test exposed herds as insurance against further spread of the disease," said Dr. Ralph Hosker, senior staff veterinarian for APHIS in Hyattsville. "Federal and state animal health officials traced the animals to the herd of origin in Wyndmere, N.D.," said Hosker. "The herd and two exposed herds were quarantined, tested for TB and later depopulated."

## Testing Cattle for TB

"The exposed cattle were injected with tuberculin and examined for responses 72 hours later," says Hosker. "More than 380 animals that reacted to the test were sent to slaughter."

According to Hosker, cattle owned by 78 members of the Cheyenne Grazing Association of North Dakota feed on the same grassland as the herd of origin and could have come in contact with infected animals. All of the herds in the Association were quarantined and tested. Other herds in the area of McLeod, N.D., were tested for surveillance purposes.

Animal health officials are still tracing exposed cattle sold to Idaho, Iowa, Minnesota, South Dakota, Texas, and Washington. So far, no bovine tuberculosis was detected in any cattle shipped to those states. The source of infection is not known at this time. ■

## Focus on people

### Federal Executive Council Recognizes NVSL Employee for EEO Achievement

Sally Hanna, a microbiologist at the National Veterinary Services Laboratories in Ames, Iowa, was recently honored by the Federal Executive Council of Greater Des Moines for her achievements in the area of equal opportunity. Out of some 5,000 federal employees in the Des Moines area, only 12 were recognized by the council. Hanna was the only EEO award recipient.

As coordinator of the Federal Women's Program for NVSL from 1974-1987, Hanna has been instrumental in developing EEO training programs for both men and women. Through her efforts, NVSL has sponsored seminars on communications skills, assertiveness training, sexual harassment in the workplace, and women's role in history. Hanna has also helped establish a productive working relationship between NVSL, the National Animal Disease Center, and the Iowa State University Women's Center.



According to Robert Nervig, director of NVSL, who nominated Hanna for the award, "Sally's work has substantially raised the awareness of both management and employees to EEO issues. In addition, her dedication to her profession has made Sally a role model for many of her fellow employees."

Says Hanna, "I was pleasantly surprised to get the award, given the number of federal employees in the Des Moines area. It was a proud moment for me."

Hanna thinks many of her efforts have paid off, and that the federal workforce is slowly improving its EEO record. "We do have more professional women in supervisory positions at the lab now, and more professional women in APHIS overall—I hope my work has helped in some way to accomplish that."

However, she stresses that there is still a great need for awareness and sensitizing of both men and women to EEO issues in the workplace. "We've come a long way, and we still have a long way to go." ■

*"We now have more professional women in APHIS..."*

—Sally Hanna



# Civil Penalties Reach \$2 Million Mark

Under a national baggage inspection program implemented in 1984, USDA has collected a landmark \$2 million in civil penalties as of June 1988, according to PPQ Chief Operations Officer Chuck Havens. The program is one of USDA's efforts to protect U.S. agriculture from foreign animal diseases and plant pests.

"The port inspection officers have averaged 1,300 penalties a month since 1984," says Havens. He says that the increase in civil penalties is a combination of more travelers bringing prohibited items into the U.S. and increased proficiency on the part of the officers.

According to Havens, the process begins when a passenger arrives from a foreign country and submits his or her baggage for inspection. Passengers are asked to declare any agricultural items on their Customs Declaration Card. "If a passenger, having denied carrying prohibited items, is searched and found guilty, the officer assigns a penalty of \$25 if the item was concealed and \$50 if there was an obvious attempt to conceal the item. If the passenger requests a hearing and is found guilty, a minimum fine of \$250 is assessed." He added that a complaint can cost up to \$1,000.

## Baggage inspectors work 8-hour day

According to Northeast Regional Director Arnold Finamore, a typical day for an inspector is an 8-hour workday in which the officer inspects baggage, profiles passengers and examines confiscated items for pests. "He or she also reviews aircraft paperwork and examines crates of incoming cargo," says Finamore. Inspectors are also responsible for monitoring the cleaning and catering services aboard the aircraft in order to verify that the services are operating within the guidelines of compliance agreements.

Confiscated items, according to Havens, have to be destroyed by use of approved sewage systems, incineration and grinding.

## Beagle Brigade aids inspection

USDA's Beagle Brigade is a national inspection program that uses detector dogs to sniff out prohibited agricultural items in passenger baggage.

"The beagles work in the same baggage area as our inspectors," says Havens, "and they have been instrumental in detecting prohibited items." Havens

explains that the beagles don't alter the baggage inspection system. "However, they further the suspicion that a passenger may be carrying a prohibited item, which ultimately helps the officers."

Currently, there are 12 detector dogs operating at international ports of entry like Miami, San Francisco and Atlanta. Each dog and its handler team up and the dog sniffs the baggage for citrus fruit, mangoes, beef, or other suspicious odors. If the dog detects something, the handler marks the traveler's Customs Declaration Card. After a primary inspection by Customs, the traveler is referred to an APHIS inspector.

## Prohibited items help monitor pests

According to Finamore, prohibited and regulated articles are taken to a room where they are examined. If pests are found, they are removed and the article is catalogued. "This is done to gauge how well the inspectors are keeping the pests out of the country," says Havens. Havens says the items also

provide information regarding the distribution of pests throughout the world. "Through examination, we are able to confirm what we know about a disease or insect or, in some cases, we are able to determine where it is occurring."

Havens says animal material is not inspected because viruses are usually contained in meats. "Since viruses are microscopic we cannot inspect for them."

## USDA records 72,000 violations

"The success of the program," Havens states, "is attributed to our PPQ officers and their supervisors. They have obviously been adhering to the system's guidelines and have not been overly zealous or abusive to passengers."

Havens says USDA has recorded 72,000 violations since the program's beginning in November 1984. He predicts that the civil penalties for fiscal year 1989 may reach as high as \$900,000. ■

Cleopatra Robinson



PPQ Inspector Lucy Ramos, based at Miami International Airport, studies X-ray screen image of traveler's baggage to see if it contains agricultural items. Passengers who conceal such items are fined on the spot. (Photo by John Kucharski)

# APHIS Observes National Disability Employment Month

Four APHIS employees have been honored by the Department as Outstanding Employees with Disabilities for 1988. Ric Backman of VS in Englewood, Colo.; Tara Kennedy of PPQ in Boston, Mass.; Ernie Magana of ADC in Denver, Colo.; and Gail Whitten of VS in Salem, Or., received certificates of recognition at a special awards ceremony October 12 in Washington, D.C.

The departmental awards were part of the October celebration of National Disability Employment Awareness Month, formerly National Employ the Handicapped Week. It was a month declared by Congress to recognize the accomplishments of workers with disabilities and to commend employers who have provided job opportunities for them.

According to Patty McClenahan of the Equal Opportunity and Civil Rights Staff, "Our theme for the month was 'Employment: A Two-Way Opportunity.' Employers can help people with disabilities by providing them with job opportunities. In turn, disabled employees can bring their expertise and persistence to the workplace, which benefits the employer."

Associate Administrator Larry Slagle stressed that APHIS is serious about providing equal employment opportunity for all employees and applicants without regard to handicapping conditions.

"There are many people with disabilities who are ready to work," said Slagle. "All APHIS managers and supervisors are urged to consider qualified people with disabilities for job openings—not just this month, but throughout the entire year."

He added, "APHIS would like to recognize the outstanding abilities of all of our employees with disabilities. Their contributions are resulting in benefits to the entire agency and are greatly appreciated." ■



Administrator James Glosser with APHIS' Outstanding Employees with Disabilities for 1988: (l-r) Gale Whitten, Ric Backman, Tara Kennedy, Ernie Magana. (Photo by Anita McGrady)



# Deputy Lonnie King Sees Challenging Future for VS

Lonnie J. King, the former Animal Health Information veterinarian who so successfully led the development of the National Animal Health Monitoring System (NAHMS), has been named deputy administrator for Veterinary Services.

King returns to APHIS after a short stint as director of the Governmental Relations Division of the American Veterinary Medical Association. At APHIS, he held a variety of positions from 1977 to 1987. In the mid-1980s, his writing and speaking engagements earned enthusiastic industry and state support for NAHMS, the cooperative state-federal-industry monitoring system that has begun to define, for the first time, the extent and cost of U.S. livestock diseases on a state and national basis.

At AVMA, King represented 47,000 member veterinarians on political and government-related issues and he says his experience there will be valuable in his new position with APHIS. "Working outside the government gave me a new perspective," he says, "and I learned a lot about creating coalitions and getting grassroots support for new initiatives."

He's pleased about having been able to create a five-year plan for AVMA before he left... "a blueprint for the future for building political skills and influence within the veterinary medical community. This was an enjoyable period for me, but I've always been compelled toward public service and

the new opportunity with APHIS was an exciting challenge."

King believes there are unique challenges ahead for Veterinary Services as well. "We're in a transition period," he says, "entering the second 100 years of animal health. I see my role as helping to create a strategic vision that will move VS from traditional programs to new ones, while at the same time putting a new emphasis on service within existing programs. We must always honor the past, but we must also adapt to changes in society and technology that require us to meet new public demands. By moving in this more productive direction, we will create wider public trust."

In announcing King's appointment, Administrator James Glosser praised his efforts in behalf of NAHMS, saying they made the innovative project a reality. "We're delighted that Lonnie King is returning to APHIS, which he served with distinction in every respect during his career here."

Before coming to Hyattsville, where he held various staff assignments, King served as field medical officer in Georgia and station epidemiologist in Texas. Earlier he was engaged in private veterinary practice in Dayton, Ohio and Atlanta, Ga.

The Wooster, Ohio native is a diplomat of the American College of Veterinary Preventive Medicine and in 1986 completed the Senior Executive Fellowship Program at Harvard University.

He earned his bachelor of science and doctor of



veterinary medicine degrees from Ohio State University. During a special USDA assignment in 1980, he received a master's degree in epidemiology from the University of Minnesota. ■

Bonnie Aikman

## Keeping Gophers From Disconnecting the Phone

You've come to expect a break in the phone service from overloaded lines or electrical storms. But would you believe that you can get disconnected by a pocket gopher, a tiny mammal weighing less than 8 ounces?

That's exactly the problem people experienced in some communities in the Western Plains, the gopher's natural range. Gopher damage has increased as telephone companies replace the more bite-resistant underground metal cables with thin fiber-optic cables. This has prompted the phone companies to come to APHIS for some help in animal damage control.

Leading the effort to help with the gopher problem is Keith LaVoie, a research biologist in the mammal damage section of the Wildlife Research Center at Denver. The Center helps the APHIS Animal Damage Control field force with information and applied research that can help ward off the chomps and bites inflicted on human endeavors by wild animals that share the planet.

Why gophers go for telephone cables, no one knows. Surely the small burrowing creatures know there is no food on the line and they have no interest in even the hottest gossip. Possibly, they just love a challenge to their prodigious gnawing ability.

"Pocket gophers can bite with incredible force," LaVoie says.

He found that gophers register a bite of 18,000 pounds per square inch (psi) on ADC's "Bite-O-Meter," an affectionate name for a scientific measuring gadget. By comparison, a rat, itself a respectable biter, can muster only 7,000 psi.

"If you want to declare a champion in jaw strength, the laurels would go to the tree squirrel," LaVoie says. "It can muster a full 22,000 psi, which outperforms the gopher on an absolute basis. But a squirrel is three times the weight of a gopher. So ounce for ounce, the gopher remains the biting champion."

To counter that kind of challenge, LaVoie tells telephone companies to enclose their plastic cable in a stainless steel sheath at least 5 mil thick. (A mil is one-thousandth of an inch.) That design can withstand even an 18,000 psi chomp.

LaVoie says an alternative to stumping the gopher's chomp is overreaching the gopher's mouth. That also is no small feat, as the small creature has an amazingly big mouth, one inch wide between teeth tips. Devil that it is, the pocket gopher can use its one-inch span to gnaw a two-inch cable. Even 2-1/2 inches is manageable. At 2.9 inches, it gives up, LaVoie has found. So instead of using hard steel, telephone companies can put cable inside a 3-inch plastic pipe without joints.

"Either method increases the cost," LaVoie says, "but that seems to be the tariff for crossing gopher country with plastic cable." ■

Max Heppner

## New Video Available

A video presentation on NAPIS, the National Agricultural Pest Information System, is now available from the Media Services Unit, Legislative and Public Affairs.

Titled "NAPIS: Tracking Plant Pests for Today and the Future," the video gives an overview of this computerized data base for plant pest survey throughout the United States. Users can access NAPIS for up-to-the-minute information on new infestations, movement of established pests, crop conditions, and other useful topics.

NAPIS was developed as part of the Cooperative Agricultural Pest Survey (CAPS) Program, formerly called the Cooperative National Plant Pest Survey and Detection Program (CNPPSDP).

The 20-minute color presentation is suitable for use with state and federal regulatory agencies, Cooperative Extension offices, researchers at universities, private industry, and other interested audiences.

To request a copy of the videotape, contact Mike Moore or Betsy Adams, Media Services Unit, USDA-APHIS-LPA, Room 700 Federal Building, Hyattsville, MD 20782; telephone (301) 436-5909.

For more information about CAPS and NAPIS, contact Dave Talpas, National Survey Coordinator, USDA-APHIS-PPQ, Room 643 Federal Building, Hyattsville, MD 20782; telephone (301) 436-6365. ■

## HQ Celebrates 500 Years of Hispanic Heritage

### Edgardo Lopez Speaks to Hyattsville Employees

Edgardo Lopez, supervisory accountant for the Budget and Accounting Division and chairman of the APHIS Hispanic Heritage Committee, addresses Hyattsville employees on the agency's progress in Hispanic employment. This program was one of many that took place during Hispanic Heritage Week, held September 12-17. The theme for 1988 was "Five Hundred Years of Hispanic Heritage: The Women's Contribution." (Photo by Anita McGrady)





# Veterinary Services at New York's "Animal Hotels"

Recently, the captain of KLM Flight 643 enroute from the Netherlands to John F. Kennedy International Airport in New York surprised his passengers. He asked the crew to open a rear door in the cabin and showed the people a load of horses traveling in the cargo section.

"Except for such rare instances, the millions of people passing through JFK Airport don't realize that millions of animals also pass that way. They use separate travel compartments and separate hotels," says Eugene (Bif) Bifano, a supervisory inspector with VS at JFK.

Bifano, however, sees many of them. When the horses on Flight 643 arrived at the terminal, Bifano took blood samples for analysis by the National Veterinary Services Laboratories in Ames, Iowa. Then he supervised loading the horses for the 70-mile trip up the Hudson River Valley to their "hotel." Its formal name is the New York Animal Import Center, and it is operated by VS at Stewart Airport, near Newburgh, N.Y.

The reason for quarantining incoming horses is to keep foreign animal diseases from coming in with them. European horses are tested for dourine, glanders, piroplasmosis, and infectious anemia. Horses from Africa also are observed for African horsesickness, which requires a longer quarantine.

Horses staying at the NYAIC are charged for room and board, just like human travelers. Each of the horses from Flight 643 ran up a bill of \$72.20 per night, the top rate at the center. (For comparison, a small bird is charged only \$0.35 per night.) The horses had to stay four days, until test results from Ames verified that they were free of foreign diseases.

"We handle a changing variety of clientele, in addition to horses," Crawford says. "Currently, the zoo industry is importing fewer animals because they are breeding more exotic animals domestically. We still see giraffes and zebras, dik-dik and duikers, but fewer of them."

"At the same time, we have more ostriches coming through. Just last week, we processed a crate of a hundred chicks and a group of 35 adults. They were going to American ostrich ranches, a new business generated by the embargo on trade with the Republic of South Africa. Dealers find ostriches in Tanzania, Israel, and the Dominican Republic to replace the former trade from South Africa. We check them to be sure they're free from exotic poultry diseases."

A third "animal hotel" handling air travelers in the New York area is located right at JFK Airport, managed as a public service by the American Soci-

ety for the Protection against Cruelty to Animals (ASPCA). The animals housed there are tended by ASPCA employees and doctored by veterinarians in private practice. However, the disease control, care and handling of the animals is supervised by APHIS.

"The animalport, as the ASPCA calls it, is housed in the building next to our office," says Bifano. "and we're in there practically every day. For example, we certify horses for export and we check on the care and comfort of animals whose travel inside the United States is covered under the Animal Welfare Act."

Other animal hotel facilities in the New York area cater exclusively to pet birds, Bifano explains. VS has approved six commercial bird quarantine facilities in the area; only two of them have taken in birds this year, one in Springfield Gardens, another in the Bronx. The minimum stay required for incoming birds is 30 days. Once again, the objective is to assure that the birds are free of foreign poultry diseases, especially exotic Newcastle disease.

"At the moment, New York isn't handling its usual share of the bird trade," says Bifano. "Our facilities have processed less than 5,000 birds this year, compared to over 80,000 birds in the Miami-area facilities." ■

## ADC Pilot Pulls Off No-Engine Landing

ADC Pilot Darwin Mabbutt of Delta, Utah, found himself last May flying on a coyote control mission—without an engine. Mabbutt, with 20 years of ADC flying time behind him, quickly recognized the problem—a disconnected throttle linkage—and brought the plane safely down on a deserted road.

Mabbutt likened his engine problem to driving a car with the gas pedal frozen in one position. He had too much power to land the plane but was losing power so quickly that he could only hope to stay airborne for three or four more minutes. Only by shutting off the engine could he bring the plane down.

The veteran pilot quickly identified a country road that could serve as an emergency landing strip, brought the Piper into position and turned off the engine.

A few seconds later, he glided to a safe stop and repaired the throttle, securing the replacement part into the engine with a piece of wire cut from a nearby fence.

Mabbutt, who has been flying planes since just after World War II, made light of the incident. "I guess it was exciting there for a minute or two. But it just goes with the job."

With the engine once again responding to his control, he set off to rejoin the ground crew, eliminated the problem coyotes and called it a day.

The Utah ADC office has three full-time pilots and planes, who log some 15,000 hours per year, flying almost daily in the months from September to June.

Regional Director Bobby Acord said the engine had recently been replaced on Mabbutt's plane, and



ADC pilot Darwin Mabbutt prepares to embark on another coyote control mission.

that two similar incidents had taken place over the past two years in other ADC aircraft shortly after engine maintenance. He alerted all ADC pilots to check the linkages following engine changes or major maintenance. ■

## Betty Liebe: An Appreciation

*Inside was saddened to hear of the death May 24 of Betty Liebe, who served on the Screwworm Eradication Program in Texas for many years. The following is excerpted from an appreciation written by John Ferguson, agriculture editor at the McAllen Monitor, and sent to us by APHIS retiree Don Nielson:*

The obituary in the *Monitor* last Wednesday described Betty Liebe as a "certified professional secretary." There was no mention of the Screwworm Eradication Program. But to those of us who knew and admired her and made demands on her time, Betty WAS the screwworm program.

Oh sure, there were those who carried the title of director: she served three of them—M.E. "Cotton" Meadows and S.C. Gartman, both retired, and Jim Novy, now co-director of the joint U.S.-Mexico Screwworm Program in Mexico City.

Secretary? She really was, I suppose, but that's kind of like labelling Joe DiMaggio an outfielder. Or Billy Graham a preacher. Like those disparate luminaries, she was one of a kind. And indispensable to someone seeking the latest information on the screwworm status of Texas. Or something to brighten his day.

Cotton Meadows is in Washington and can't take your call? Betty knew the answer and you got it pronto. Jim Novy in Mexico and can't respond? Betty could, and did. When you called the Screwworm Lab at Moore Air Base back in the 70's, you knew you'd get an answer pretty close on the mark if Betty Liebe was on the job. And she almost always was.

Even after the production of sterile flies was transferred from Moore Base to southern Mexico in 1979, Betty continued to hold down the fort in a program greatly reduced by that shift in operations. Last summer she organized the 25th Screwworm Program Anniversary, which was an outstanding success.

Betty was a certified joy to be with. We will always remember her irreverent wit and the unvarnished opinions she shared with anyone who inquired.

Now she's gone and at only 63. By today's standards, Betty Liebe was still a youthful woman, especially in spirit.

We miss you, doll. We sincerely do. And not just for the ready answers you supplied, nor the way you expressed them. But it all helped.

We were privileged to have known you. Adios! ■

## Retirements

### Animal Damage Control

Gorgas, Donald, wildlife biologist (technician), Sonora, CA

Hansen, Jack, wildlife biologist (technician), Emmett, ID

Riebe, Lela, program assistant, Lakewood, CO

Valvano, Annaliese, editorial assistant, Lakewood, CO

### Plant Protection and Quarantine

Blakeslee, Daniel, Jr., PPQ technician, San Diego, CA

McCarty, Morris, PPQ officer, Miami, FL

Richnavsky, Sue, editorial assistant (typing), Hyattsville, MD

Trujillo, Alberto, PPQ officer,

San Juan, PR

Utter, Gustav, PPQ officer, Cape Canaveral, FL

White, James, PPQ officer, Mobile, AL

### Veterinary Services

Albancsi, Sylvia, compliance assistant (typing), Hyattsville, MD

Bryant, James, program clerk (typing), Jefferson City, MD

Hess, V., Wayne, veterinary medical officer, Laredo, TX

McKee, Albert, veterinary medical officer, Starkville, MS

Nubbe, Mylan, biological aid (microbiology), Boise, ID

Waddell, James, veterinary medical officer, Sedalia, MO ■



# APHIS "Makes Safety Happen" at Agencywide Conference

It was APHIS history in the making from September 19-23, as all the agency's safety and health officials came together for the first time at a conference in Chicago. Safety and health officers, representatives of the regional and laboratory councils, and members of the National Safety and Health Council welcomed the opportunity to exchange ideas and hear from experts on a wide range of safety and health topics.

At the meeting, *INSIDE* spoke with Assistant Secretary for Administration John Franke about the importance of safety and health in the federal workplace.

*What is the significance of bringing all the APHIS safety and health officials together at one conference?*

I think it's an indication that APHIS realizes that the well-being of the work force is important. Safety and health is much more than fastening your seat belt. Some very important and timely issues are being addressed in this conference's outstanding agenda—defensive driving, exposure to infectious diseases, and overall safety. It's a real demonstration of commitment.

*Have you seen an improvement in safety and health in USDA over the past couple of years?*

I've noticed an increased awareness of safety and health issues and better communication in resolving those issues. People in USDA are starting to talk about safety and health, and that's important. Part of the job of safety and health officials is to raise employees' consciousness of the impact safety and health can have on their lives, and I do see that improving.

*What are some of the up-and-coming safety and health issues affecting APHIS and the Department?*



Associate Administrator Larry Slagle with 1988 Safety and Health Award winners: (l to r) C. Dennis Munson, Ron Johnson, George Crowell, Victor Withee; seated, left to right, Harry Siers, Casey Ashworth, Joe Ford. (Photo by Anita McGrady)

One of the issues you're really going to be looking at, where the safety and health implications will have an impact throughout the Department, is how you address the AIDS problem—it's a very serious question. What are the facts of the situation, what's going to happen in the workplace when someone has AIDS? We need to get the facts so we can address the problem in an aboveboard, common-sense manner.

*Is there one aspect of APHIS' current safety and health program that you see as most important?*

Certainly—this meeting. It's an opportunity to present current and timely issues, and to anticipate some questions down the road. You're charting a path here for other agencies—a consolidated safety and health conference has been overlooked frequently in the past. The implications are enormous. ■

Caree Lawrence

## ADC Protects Aquaculture Farms

Farmers in the United States are hooked on a fishy business that reels in \$500 million dollars a year. Aquaculture, or the production of fish and other aquatic life for profit, thrives in many states, including Alabama, Arkansas, Georgia, Idaho, Louisiana, Maine, Mississippi, Texas, and several other states. It began many years ago in the oriental cultures of Asia and gradually worked its way to the United States.

Farmers raise catfish and crawfish for the dinner table in Louisiana, Mississippi, and Texas, trout in Idaho, and salmon in Maine. Golden shiners, fat-head minnows, and goldfish are raised in Arkansas for fish bait. Arkansas raises 80% of the country's bait fish.

### Fishy Business

According to Thurman Booth, ADC's state director in Arkansas, more than 50,000 acres of ponds in Arkansas are devoted to aquaculture. An average operation stretches over 40 acres. The ponds provide habitat for thousands of water and wading birds such as herons, egrets, grebes, cormorants, and ducks.

"The ponds may contain from 400 to 1,000 pounds of fish per acre in water up to 4 feet deep," says Booth. "When producers drop the water level to harvest the fish, depredating birds, like the long-legged herons, stand easily in the shallow water and feed on the fish. On the average, one great blue heron consumes two-thirds of a pound of fish a day. Depredation by some species of birds also occurs in deeper water."

"Migratory birds can also transmit disease and parasites," says Booth. "In one incident, a farmer estimated losses at \$250,000 when Ichthyophthirius disease, spread by gulls, infected his ponds."

### Scare Tactics Prevent Losses

ADC employees work with fish producers to reduce losses. They use devices such as pyrotechnics to scare birds away from the ponds. Exploding shells are shot from a shotgun or special pistol and propane cannons are fired automatically by a timer.



An employee of the U.S. Fish and Wildlife Service sizes trout at the Greers Ferry National Fish Hatchery in Heber Springs, Arkansas. (Photo by Thurman Booth)

Another useful device is a tape recording of birds in distress. Amplified over a loudspeaker, the distress calls send a message that this is not a good area to roost or feed. ADC uses a combination of devices because birds learn to adapt to one device. Noises up in the air near the birds are more effective than those on the ground.

Some birds, which are sick or injured, do not respond to scare devices. If they remain, the birds will decoy others back to the ponds. Depredation permits, issued by the U.S. Fish and Wildlife Service, allow for limits on the number of animals that may be taken.

Booth said aquaculture producers must realize that scaring birds is an ongoing management practice. Different bird problems occur at different times of the year at aquaculture facilities because of migration. Scaring may be necessary for several months, especially from spring to fall, to prevent costly losses from bird depredation. ■

Marlene Stinson

## Salmonella Work Group

Last April, the Centers for Disease Control in Atlanta, Ga., reported 11 deaths and more than 2,000 cases of *Salmonella enteritidis* in the Northeast from January 1985 to May 1987. *S. enteritidis* is a bacteria that can be transmitted to humans by eating raw or uncooked eggs. CDC pointed to Grade A table eggs as a possible source for most infections, and new evidence has revealed that the bacteria can be transmitted to the egg before it is laid.

James W. Glosser, APHIS administrator, formed a special 30-day SE Work Group in order to address the growing public health concerns. The group, made up of a dozen veterinarians, epidemiologists, administrative personnel and a public affairs specialist, met daily from late August until September 23rd. Members were asked to review data on *S. enteritidis*, to study research needs, and to recommend clearance on a model state testing program.

On August 31, the USDA and the FDA sent state agriculture, animal health officials, the poultry industry, and state public health officials a voluntary plan called the "Salmonella Enteritidis Model State Quality Assurance Program" designed to help reduce the presence of SE in table eggs. The plan calls for producer cooperation in testing breeding and suspected commercial egg production flocks. It allows for priority testing of flocks associated with the presence of SE in poultry and human related illness.

The original plan was drafted by the Northeastern Conference on Avian Diseases and further developed by APHIS, Agricultural Marketing Service (AMS), Agricultural Research Service (ARS), Cooperative State Research Service (CSRS), the Food and Drug Administration (FDA) and the Centers for Disease Control (CDC).

AMS, coordinating efforts with APHIS and the FDA, began mailing out 50,000 information bulletins on safe egg handling practices for consumers and food handlers. The bulletins are part of a public awareness campaign to educate the public on safe food handling. The bulletins are aimed at high-risk groups such as the very young, the elderly, and those with weakened immune systems. ■



# Tropical Ticks Under Siege in U.S.-Puerto Rico Program

There's a tick attack going on in Puerto Rico. Veterinary Services and the Puerto Rico Department of Agriculture have joined forces to eradicate the tropical cattle tick (*Boophilus microplus*) from the Commonwealth. Together, they have brought nearly two-thirds of the island under the eradication program.

Ticks transmit animal diseases such as babesiosis and anaplasmosis that lead to weight loss, lowered disease resistance, and often death in Puerto Rico's livestock.

About 20 APHIS employees work with more than 900 Commonwealth employees in the \$12.1 million a year program. Many of the state workers were hired through a block grant to Puerto Rico from USDA's Food and Nutrition Service. More than 8,500 herds with approximately 147,000 host animals are currently being treated every 21 days.

Tick eradication requires a large field staff to spray the animals with pesticides, maintain constant tick surveillance, and operate quarantine stations.

With the added manpower brought on through the FNS grant, tick eradication has moved steadily forward in Puerto Rico. Today, some 50,000 farms are part of the program, and nearly half of these are tick-free.

Another 7,000 herds have finished their treatment cycle and are close to being declared tick-free. All herds must be treated at least 12 times and be found free of ticks during at least three inspections, according to Dr. Tom Holt, Puerto Rico AVIC. "In the last few years we've seen significant progress in the program and we're very satisfied with the results," reports Dr. Holt.

The same enthusiasm exists at the field level. Emiliano del Rio, hired under the FNS grant in 1984, began working with the tick program as a livestock sprayer. He is now an assistant supervisor. "Before coming to the program, I worked in construction," says del Rio, "but never full-time. I'm proud of my job and the work I've done in my four years here." ■

Pat El-Hinnawy



An employee of the cooperative U.S.- Puerto Rico eradication program sprays cattle with insecticide to eliminate ticks.

## (Al)luring Solutions to the Pink Bollworm Blues

When Bob Staten, PPQ supervisor for the Pink Bollworm Management Trials, presented data from this year's work to western cotton growers, an impressed hush fell over the room. After 23 years of bombarding pink bollworms with intense and costly insecticide, the pests have been contained insecticide-free this season in southern California's Coachella Valley.

Loomsfull of raw Coachella cotton have been examined—33,720 blooms and bolls, to be exact. The findings? Just one newly hatched "pinkie" (as it is called by those on intimate terms with this primary pest of southwest cotton). While examining boll after perfect boll has bored the workers, Staten and the cotton growers are anything but bored by the prospect of low-insecticide, pinky-free cotton in southern California.

"This is the best shot we've had yet of getting rid of pink bollworm without the constant use of hard insecticides in southern California," says Len Foote, California Department of Food and Agriculture. "We're very excited about it."

### Pink Bollworm Comes to California

Pinky came to California around 1965. Before it arrived, farmers in the Imperial Valley averaged 3.49 bales of cotton per acre. Enter: pink bollworm, stage south. Exit: high yields and profits. Production plummeted to 0.4 bales per acre in untreated areas with up to 100 percent infestation of cotton bolls.

Cotton growers fought back with insecticides, which proved effective—at a cost. Costs that rose as pinky gained resistance and secondary pests emerged requiring newer, more expensive chemicals. Insecticide costs have risen fivefold—and still have not restored Imperial Valley yields to the old pre-pinky highs. Since the 1960s, yields have hovered around 2.25 bales per acre.

### Steriles Stave Off San Joaquin Infestation

With the pest already entrenched in the Imperial Valley, Dr. E. F. Knipling, ARS pioneer of the sterile male technique, used his then-novel control method to protect the 1.5 million acres of cotton in the fertile San Joaquin Valley.

Knipling and APHIS entomologist James Brazzel established a program that has prevented pinky

from gaining a toehold in the San Joaquin Valley. Spared both pinky and its attendant secondary pests, growers there save over \$200 per acre for insect control compared to those in the heavily infested Imperial Valley.

But this success is threatened by a steady trickle of migrating moths spilling northward from the Imperial Valley towards the San Joaquin. To maintain a barrier and to bring some relief to the pinky-plagued desert areas, programs were undertaken in southern California using some alternative controls.

### Innovative Answers Tried in the Desert

"Our alternative to pesticides relies on confusing male pinkies in their pursuit of a mate," explains Staten. By tying artificial sources of pheromone to plants throughout the field, the airwaves are jammed with the bollworm "perfume" that males use to locate a mate. The overwhelmed males have a difficult time locating the natural source—the female. Sterile insect programs also work to disrupt mating, but use the more authentic winged form of pheromone.

In 1982, growers—with Staten's assistance—first tried a pheromone disruption system in the Imperial Valley. The results were encouraging but costly. In 1985, new artificial sources of pheromone became available and Staten began testing it in conjunction with the sterile moths. The Coachella Valley, midway between Riverside and the Imperial Valley, proved an apt test site.

The overall plan employs a three-tiered approach: use sterile insects where feasible, use artificial pheromone to supplement the steriles where necessary, and use insecticides on fields that elude these methods. In addition, both the Coachella and San Joaquin projects are cornerstoned upon good cultural practices such as uniform planting and plow-down dates to minimize spring pest populations.

By 1987, only seven of the 27 Coachella fields required insecticides. Furthermore, fields free of pinky also were free of the troublesome whitefly, found only in insecticide-treated fields.

### Challenges to Come

The biggest barrier to alternative bollworm control on a grander scale is the limited ability to rear sterile insects. Twenty-plus years after erecting the "temporary" facility, it is still in operation. Headed by Fred Stewart, the aging Phoenix facility has overcome rearing problems with disease and diet to increase output from a quarter million to 4.5 million sterile moths daily. Four million go to blanket the San Joaquin Valley, leaving only 500,000 moths for Staten's desert programs.

Staten considers the Coachella success a textbook example of successful integrated pest management. "This data demonstrates the extreme efficacy of a biorational approach," he beams. Translated, this means that the dream of productive, insecticide-free cotton in California is edging closer to reality with each successful season. ■

Anita Brown

## Biotech Meeting

Assistant Secretary Kenneth Gilles (left) and Terry Medley, Director of Biotechnology, Biologics, and Environmental Protection (second from right) share a lighthearted moment with three other attendees at the Transgenic Plant Conference held September 7 in Annapolis, Md. (l-r) Mary Ann Danello, Special Assistant to the Commissioner of Science, FDA; John Ehrmann, Director, Science and Public Policy Programs, The Keystone Center; and Amy Rispin, Chief, Science Analysts and Coordination Staff, Environmental Fate and Effects Division, EPA. (Photo by Anita McGrady)

